



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,238	11/18/2005	Norihito Naito	00684.003635	6461

5514	7590	01/08/2008
FITZPATRICK CELLA HARPER & SCINTO		
30 ROCKEFELLER PLAZA		
NEW YORK, NY 10112		

EXAMINER	
EVANS, GEOFFREY T	

ART UNIT	PAPER NUMBER
2852	

MAIL DATE	DELIVERY MODE
01/08/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/528,238

Applicant(s)

NAITO ET AL.

Examiner

Geoffrey T. Evans

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-10 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/13/05, 7/12/05, 2/1/07, 11/29/07
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi (7,274,884), in view of Narukawa (5,583,621).

Regarding claim 1, and claims 2 and 4-10 depending therefrom, Yamauchi teaches an image forming apparatus having a first image formation mode for forming an image on an image bearing member by using developer under a first predetermined image forming condition and a second image formation mode for forming an image on an image bearing member by using developer under a second image forming condition which is different from the first predetermined image forming condition (see column 8, lines 19-25), the apparatus comprising:

storing means for storing information on an amount of usage of the image bearing member (see column 8, lines 57-62), and

control means for changing the second image forming condition in the second image formation mode depending on the information stored in said storing means (see column 8, lines 57-62).

Yamauchi does not disclose that the second image forming condition is set so that an amount of consumption of developer with respect to an identical image in the second image formation mode is smaller than that in the first image formation mode.

Narukawa teaches a second image forming condition which is set so that an amount of consumption of developer with respect to an identical image in the second image formation mode is smaller than that in the first image formation mode (see column 6, lines 1-8).

It would have been obvious to one of ordinary skill in this art at the time the invention was made, to modify the invention of Yamauchi, such that an amount of consumption of developer with respect to an identical image in the second image formation mode is smaller than that in the first image formation mode, in order to reduce toner consumption, as noted by Narukawa (see column 6, lines 1-8), and since toner consumption depends on the image forming conditions cited by Yamauchi (see column 8, lines 3-9).

Regarding claim 2, Yamauchi teaches an apparatus according to Claim 1, wherein said image forming apparatus further comprises discrimination means for discriminating an image to be formed (thresholds in memory are "compared"; see column 7, lines 39-44), said discrimination means changes the second image forming condition depending on the information on an amount of usage of the image beating

member stored in said storing means, and a result of discrimination by said discrimination means (see column 8, lines 57-62).

Regarding claim 4, Yamauchi teaches an apparatus according to Claim 1, wherein the information on an amount of usage of the image bearing member is predetermined threshold information (see column 8, line 58), and said control means changes the second image forming condition when an amount of usage of the image bearing member reaches a predetermined threshold information (see column 8, lines 57-62).

Regarding claim 5, and claim 6 depending therefrom, Yamauchi does not disclose an apparatus according to Claim 1, wherein said image forming apparatus further comprises exposure means for exposing the image bearing member under an exposure operation condition on the basis of image information.

Narukawa teaches an apparatus according to Claim 1, wherein said image forming apparatus further comprises exposure means for exposing the image bearing member under an exposure operation condition on the basis of image information (see column 5, lines 55-60).

It would have been obvious to one of ordinary skill in this art at the time the invention was made, to modify the invention of said image forming apparatus further

comprises exposure means for exposing the image bearing member under an exposure operation condition on the basis of image information, since that would enable reduction toner consumption.

Regarding claim 6, the combination made to reject claim 5 also teaches an apparatus according to Claim 5, wherein the exposure operation condition is an exposure time or luminous energy of said exposure means. See column 5, lines 55-60.

Regarding claim 7, and claim 8 depending therefrom, Yamauchi teaches an apparatus according Claim 1, wherein said apparatus includes a charging member for electrically charging the image bearing member (2; see column 4, lines 53-58) and a developing member for supplying the developer to the image bearing member (4; see column 4, lines 53-58), and the image forming condition comprises a charging condition of the charging member and a developing condition of the developing member.

Regarding claim 8, Yamauchi teaches an apparatus according to Claim 7, wherein the charging condition is a bias voltage applied to the charging member and the developing condition is a bias voltage applied to the developing member (see column 8, lines 57-62).

Regarding claim 9, and claim 10 depending therefrom, Yamauchi teaches an apparatus according to Claim 1, wherein the image bearing member and said storing means are integrally supported to form a cartridge which is detachably mountable to the image forming apparatus (C; see column 4, lines 45-49).

Regarding claim 10, Yamauchi teaches an apparatus according to Claim 9, wherein the cartridge further comprises the charging member or the developing member (see column 4, lines 53-56).

***Allowable Subject Matter***

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose or suggest, "wherein said discrimination means is means for discriminating a size of a concentrated pixel area and changes the second image forming condition depending on whether the concentrated pixel area is larger or smaller than a predetermined size," in combination with the remaining claim elements as set forth in claim 3.



Application/Control Number:  
10/528,238  
Art Unit: 2852

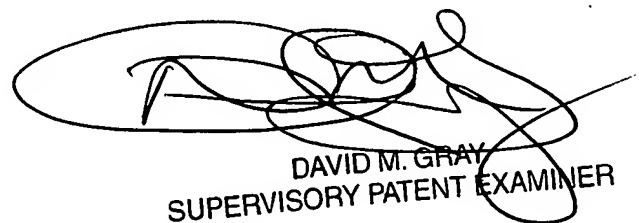
Page 8

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey T. Evans whose telephone number is (571) 272 2369. The examiner can normally be reached on 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on (571) 272 2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GTE



DAVID M. GRAY  
SUPERVISORY PATENT EXAMINER